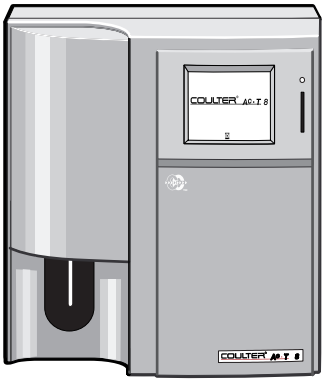
COULTER® A^{C}•T Series Analyzer

Getting Started



Read Me First

PN 4237289B March 1997

COULTER CORPORATION
Miami, Florida 33196

COULTER®

READ ALL PRODUCT MANUALS AND CONSULT WITH COULTER-TRAINED PERSONNEL BEFORE ATTEMPTING TO OPERATE INSTRUMENT.

HAZARDS AND OPERATIONAL PRECAUTIONS AND LIMITATIONS

WARNINGS, CAUTIONS, and IMPORTANTS alert you as follows:

WARNING - Might cause injury.
CAUTION - Might cause damage to the instrument.
IMPORTANT - Might cause misleading results.

CAUTION System integrity might be compromised and operational failures might occur if:

- This equipment is used in a manner other than specified. Operate the instrument as instructed in the Product Manuals.
- You introduce software that is not authorized by Coulter into your computer. Only operate your system's computer with software authorized by Coulter.
- You install software that is not an original copyrighted version. Only use software that is an original copyrighted version to prevent virus contamination.

Coulter Corporation urges its customers to comply with all national health and safety standards such as the use of barrier protection. This may include, but it is not limited to, protective eyewear, gloves, and suitable laboratory attire when operating or maintaining this or any other automated laboratory analyzer.

‡ **This symbol indicates that, at the time of instrument release, this product was not available.**

REVISION STATUS

Initial Issue, 9/96

Software Version 1.0.

Issue B, 3/97

Software Version 1.04. Actual changes, noted by bars, occured on pages 26 and 27.

Note: Changes that are part of the most recent revision are indicated by a black bar in the margin of the amended page.

This document applies to the latest software listed and higher versions. When a subsequent software version changes the information in this document, a new issue will be released.

REVISION STATUS

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INTRODUCTION

This introductory section contains the following topics:

- How to use your COULTER® A^{C}•T Series Analyzer manuals
- About this Manual
- Conventions
- Symbols
- Touch Screen Icons

How to Use Your COULTER A^{C}•T Manuals

Use the **Getting Started** manual to install and learn to operate your A^{C}•T Series analyzer.

Use the **Operator's Guide** for running your instrument day-to-day.

Use the **Special Procedures and Troubleshooting** manual for:

- Cleaning, replacing, or adjusting a component of the instrument.
- Reviewing unusual results (how to read a result report and what flags mean).
- Troubleshooting problems with your instrument.

Use the **Reference** manual for in-depth information about:

- What the instrument does
- What special requirements the instrument has (for example, space, accessibility, power)
- What methods it uses
- What the instrument specifications and performance characteristics are
- How to safely use the instrument.

Use the **Host Computer Specification** manual to:

- Find the information needed to program the transmission interface between your A^{C}•T Series instrument and your laboratory's host computer.

About This Manual

Your COULTER A^{C}•T Series **Getting Started** manual provides step-by-step instructions for unpacking and installing the instrument, customizing the software and getting to know the instrument.

- **Installing the** A^{C}•T gives you step-by-step instructions for unpacking, inspecting, setting up, starting up, and customizing the software on the instrument.
- **Learning About the A^{C}•T** supplies information about the **A^{C}•T** instrument and how you use it to analyze blood specimens.
- **Using the** A^{C}•T answers the most frequent questions a new operator might ask.

Conventions

This manual uses the following conventions:

Bold indicates A^{C}•T manual names.

Bold indicates a screen icon.

Symbols

Wear standard laboratory attire.

Keep hands away from probe area. Probe moves up and down.

Unplug the A^{C}•T before continuing.

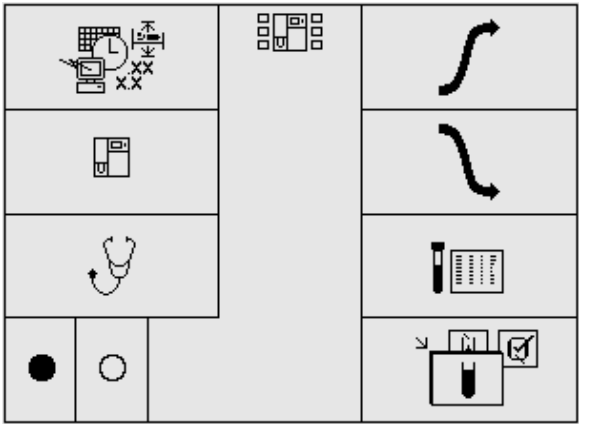
Go to.

For further information, see the **Special Procedures and Troubleshooting** manual.

‡ At the time of instrument release, this product was not available.

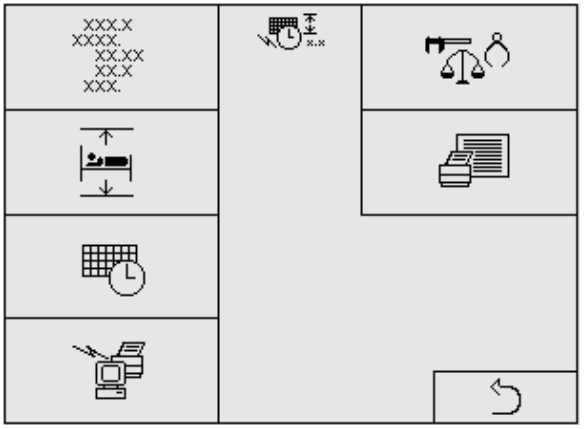
Touch Screen Icons

Main Screen Icons



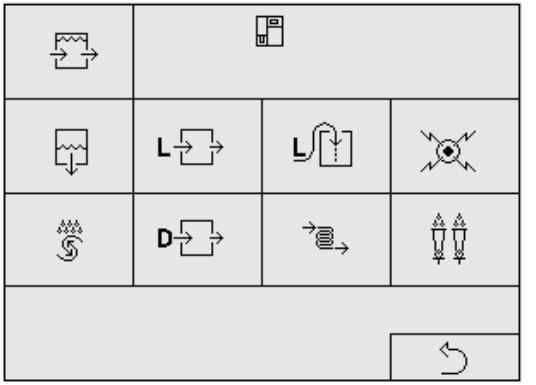
Setup	Shutdown
Diluter Functions	Sample Results Screen
Diagnostics	Analyzing Mode
Darken Screen	Whole Blood Mode
Lighten Screen	Predilute Mode
Startup	A^{C}•T Tron‡ Mode

Setup Screen Icons



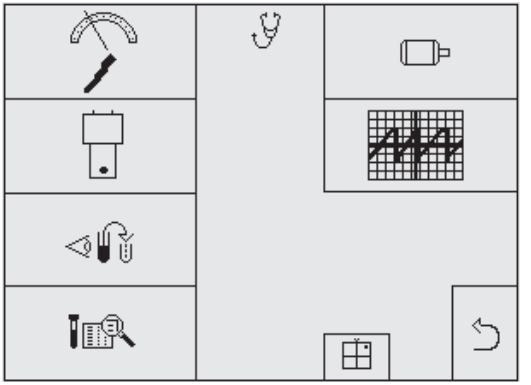
Units	Calibration Factors
Patient Limits	Print Setup Report
Date/Time	Exit
Transmission	

Diluter Functions Screen Icons



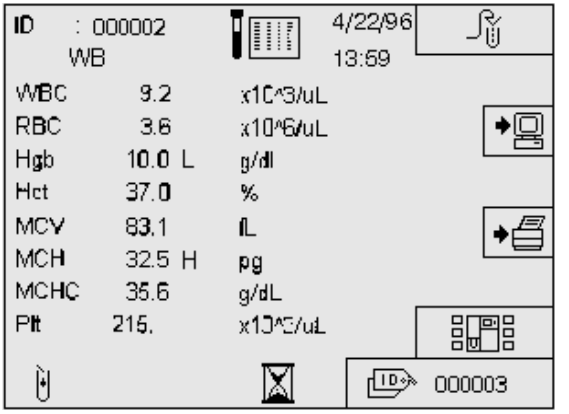
Wet Prime	Dispense Lytic Reagent
Drain Baths	Prime Sweepflow
Rinse + Mix	Zap Apertures
Dry Prime Lytic Reagent	Clean Baths
Dry Prime Diluent	Exit

Diagnostic Functions Screen Icons



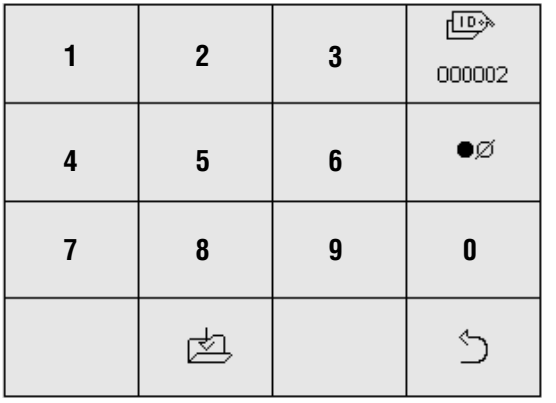
Voltages/Sensors	Motors
Solenoids	Pulse
Verify Predilute	Exit
Sample Details	Prepare to Ship

Sample Results Screen Icons



Dispense Diluent	Go to Main Screen
Resend to Host	Enter Sample ID
Print Sample Results	In Progress

Sample ID Screen Icons



Delete	Save and Exit
Exit	

Delivery Inspection

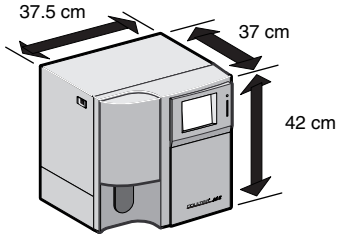
Your A^{C}•T is tested before it is shipped from the factory. International symbols and special handling instructions tell the carrier how to treat this electronic instrument.

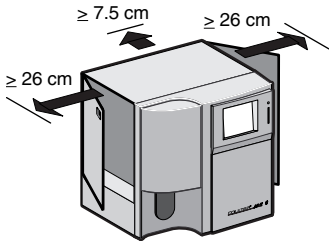
When you receive your instrument, carefully inspect the carton. If you see signs of mishandling or damage, file a claim with the carrier immediately. If the instrument is insured separately, file a claim with the insurance company.

Preinstallation Checks

Space and Accessibility Requirements

Check the site for proper space allocation. The A^{C}•T doors require 26 cm to open fully. You must open the left side door fully when replacing the A^{C}•T Tainer‡ reagent.



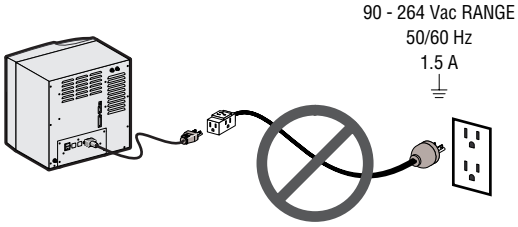


Power Requirements

IMPORTANT May compromise instrument results. If you use an extension cord, you could encounter electrical interference that could affect the instrument's results. Place the instrument close enough to a power outlet that an extension cord is not necessary.

Check for the availability of a power connector.

- 120/240 Vac
- 50/60 Hz
- 1.5 A
- Single phase with ground.



Safety Precautions

Electronic

WARNING Risk of personal injury. Rings or other jewelry can contact exposed electronic components causing personal injury from electronic shock. Remove rings and other metal jewelry before performing maintenance or service on the electronic components of the instrument.

CAUTION Risk of damage to electronic components. If removal/replacement of printed circuit card or components is performed while power is ON, damage to components may occur. To prevent damage to electronic components, always make sure power is OFF before removing or replacing printed circuit cards and components.

CAUTION Risk of damage to electronic components. Electrostatic discharge (ESD) can damage add-in circuit cards and other electronic components. Perform any procedures where there is a possibility of ESD damage, at an ESD workstation or wear an antistatic wrist strap attached to a metal part of the chassis that is connected to an earth ground.

Use care when working with pathogenic materials. A procedure should be available to decontaminate the instrument, provide ventilation, and to dispose of waste liquid. Refer to the following publications for further guidance on decontamination.

- Biohazards Safety Guide, 1974, National Institute of Health.
- Classifications of Etiological Agents on the Basis of Hazards, 3d ed., June 1974, Center for Disease Control, U.S. Public Health Service.

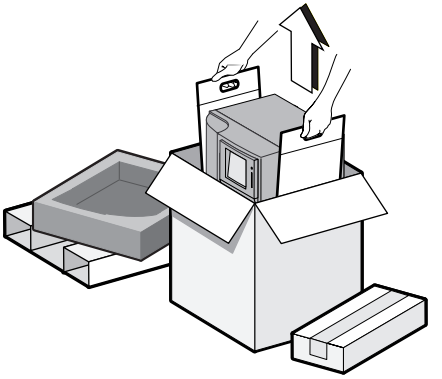
Biological

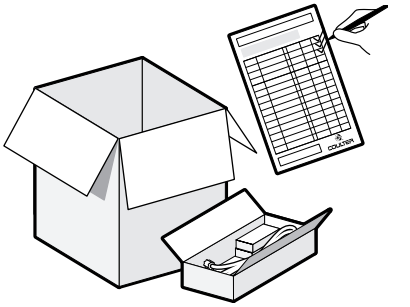
WARNING Risk of personal injury or contamination. If you do not properly shield yourself while servicing the instrument with the doors open, you may become injured or contaminated. To prevent possible injury or biological contamination, you must wear gloves, a laboratory coat and eye protections when servicing the instrument with the doors open.

Initial Setup

Unpack and Inspect the Instrument

1





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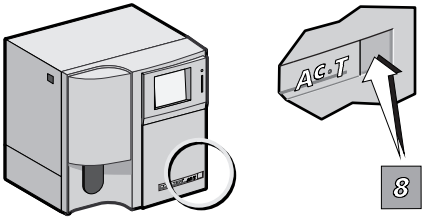

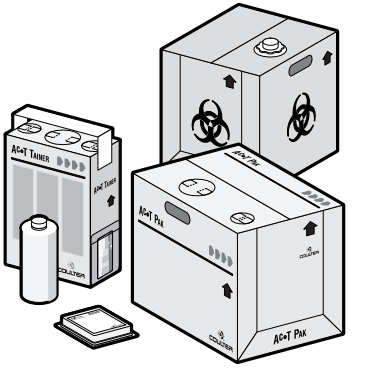

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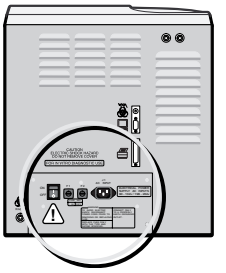


CAUTION
ELECTRIC SHOCK HAZARD
DO NOT REMOVE COVER

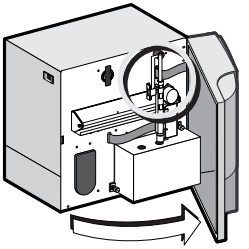
FOR IN VITRO DIAGNOSTIC USE

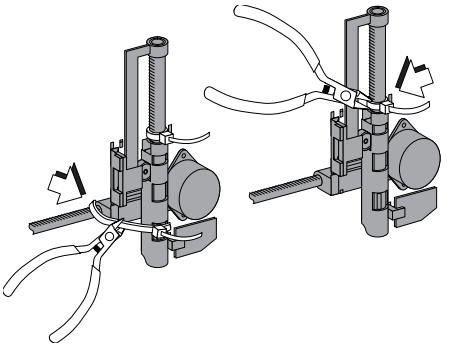
FUSE 3AG	
1 . 5A	250V

WARNING

TO AVOID ELECTRIC SHOCK DISCONNECT POWER CORD PRIOR TO REMOVING OR REPLACING FUSE .	CONNECT ONLY TO A PROPERLY EARTH GROUNDED OUTLET .
REPLACE FUSE ONLY WITH THE TYPE AND RATING SPECIFIED .	

4





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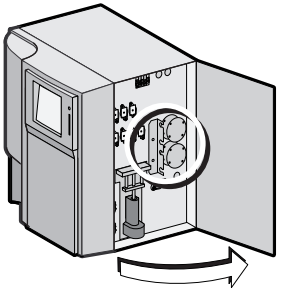

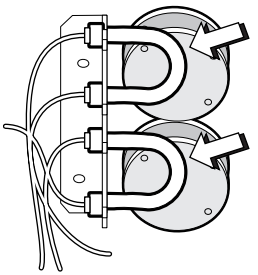

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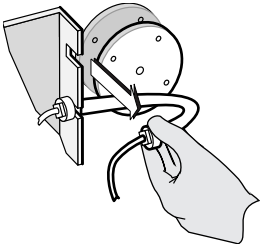

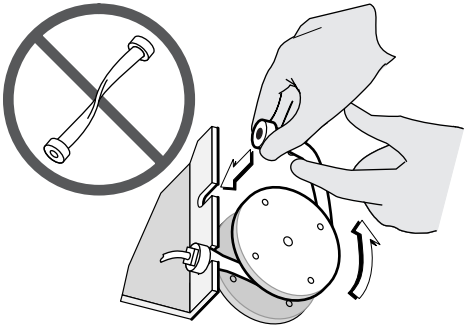

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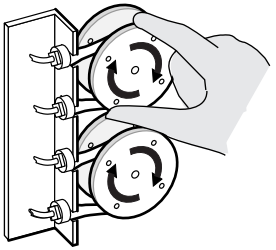
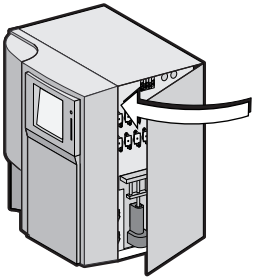


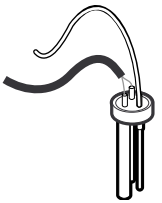


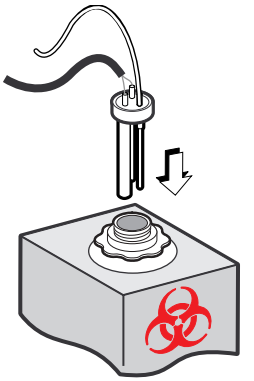
Connect the Waste Container

Be sure to connect the waste container to the instrument before connecting the reagents to the instrument.

WARNING Waste can include biohazardous material. Handle and dispose of according to acceptable laboratory standards.

1





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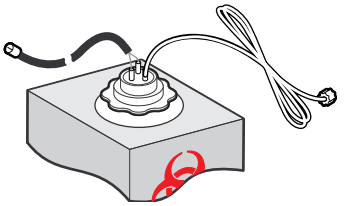

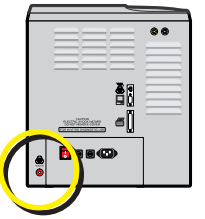

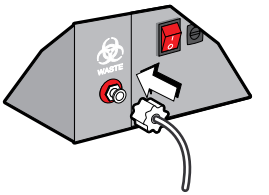

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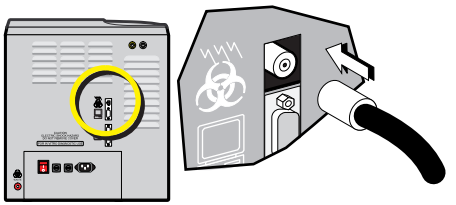
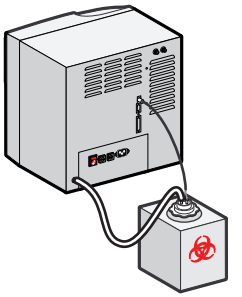
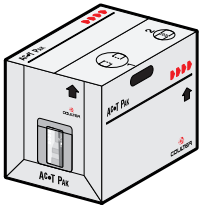


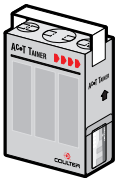


Connect the Reagents (A^{C}•T Pak)



A^{C}•T Pak

or



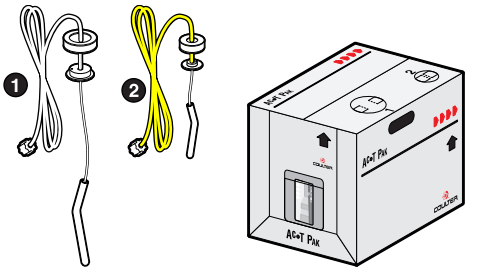
A^{C}•T Tainer

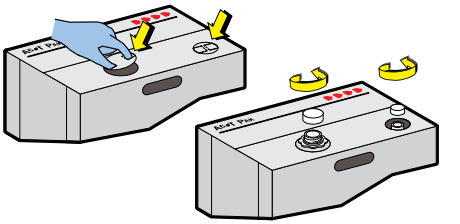
Go to Page 8.

Look at step 1. If your reagent containers are like the picture, use the instructions on this page. Otherwise, use the instructions in the Connect the Reagents (A^{C}•T Tainer‡) heading.

CAUTION Risk of damage to equipment. Turning the instrument's power on before the instrument is completely set up could damage the instrument. Do not turn the instrument's power on until you have completed connecting the reagents and the printer.

1





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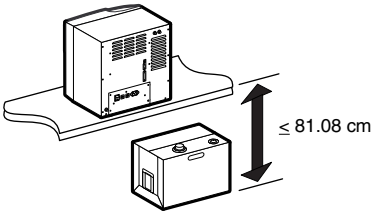

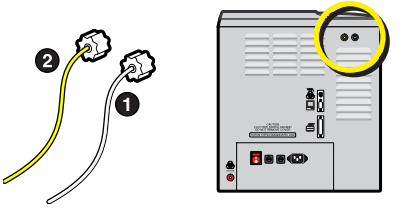

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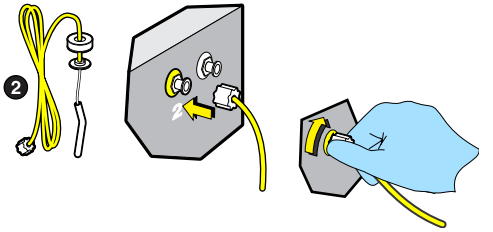

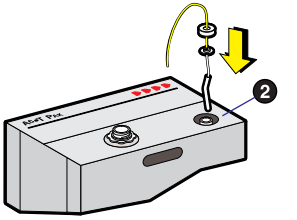

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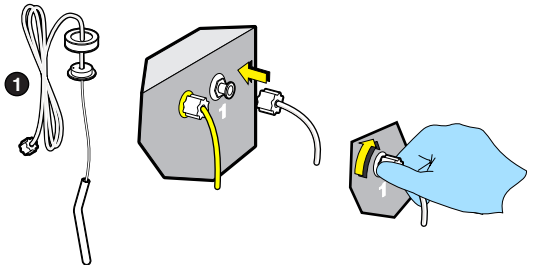

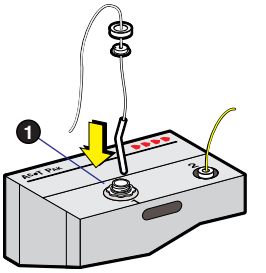

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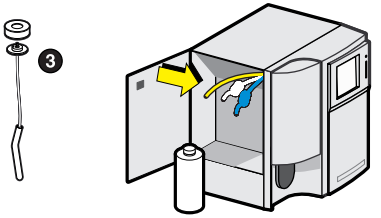

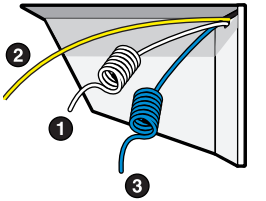

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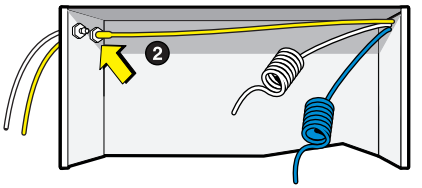

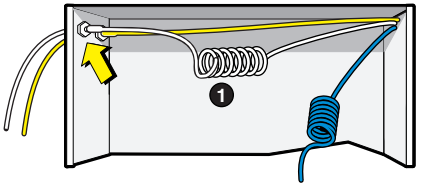

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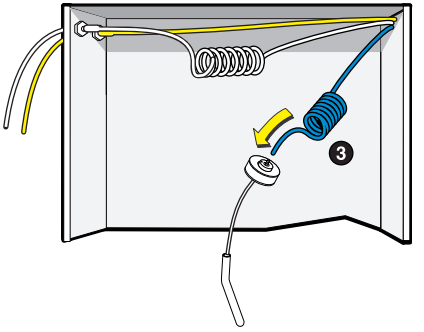

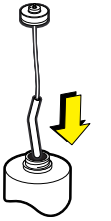

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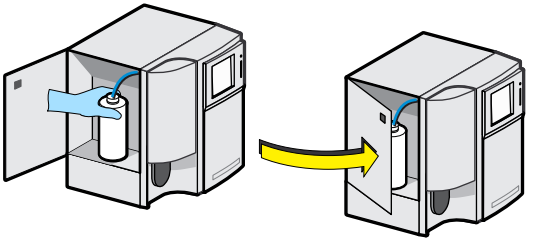

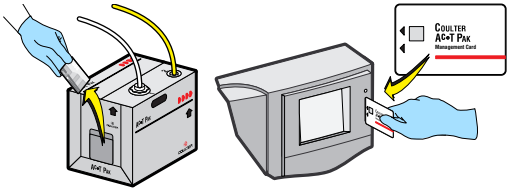

Connect the Reagents (A^{C}•T Tainer‡)

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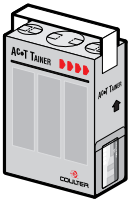

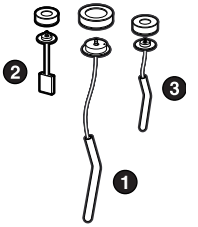

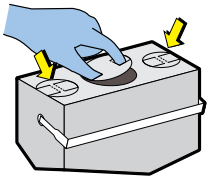

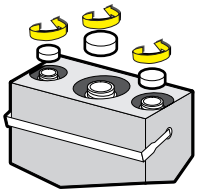

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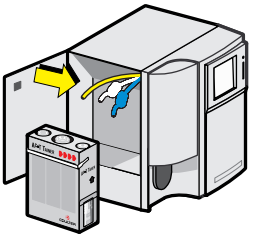

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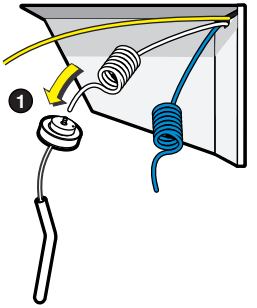

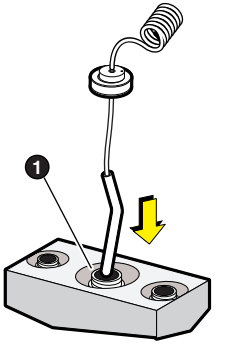

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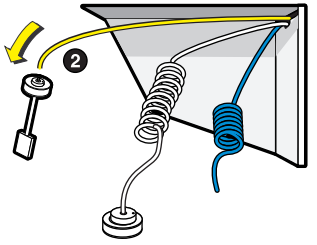

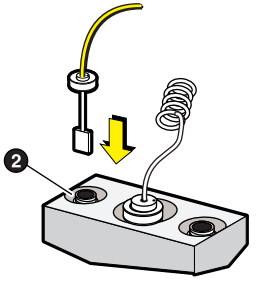

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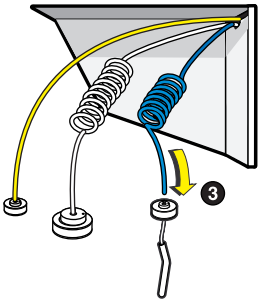

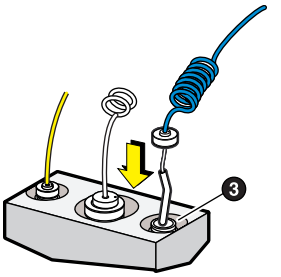

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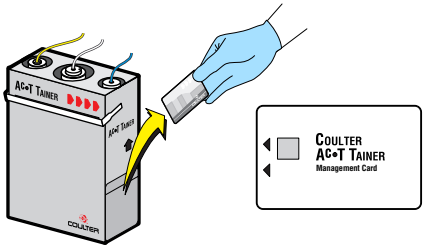

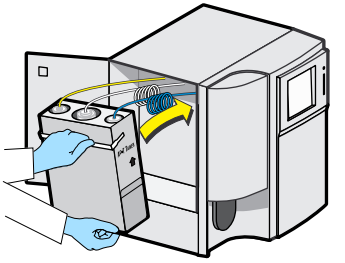

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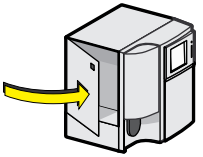
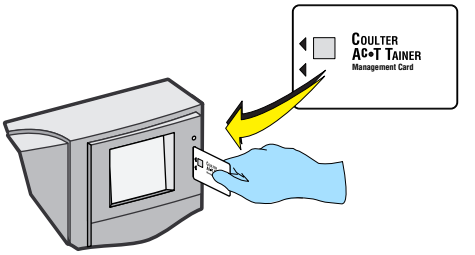
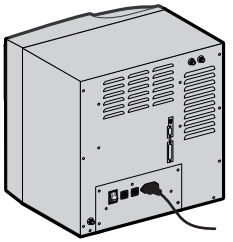
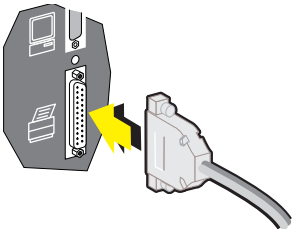




Connect the Printer

Connect the printer cable to the A^C•T as shown below. See your printer manual for further instructions.





Installing the Instrument

Power Up the A^{C}•T

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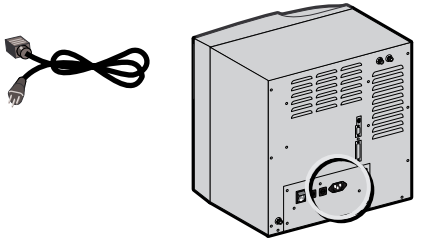

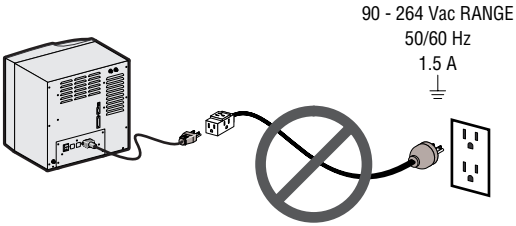

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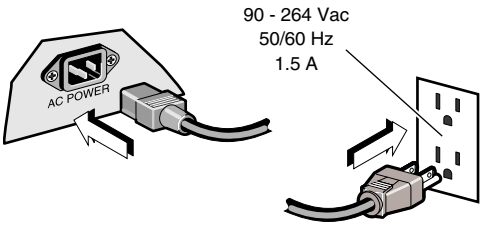

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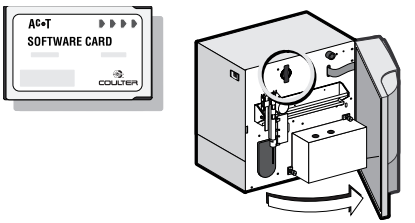

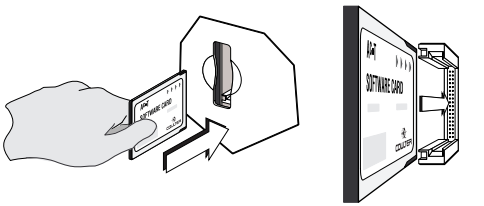

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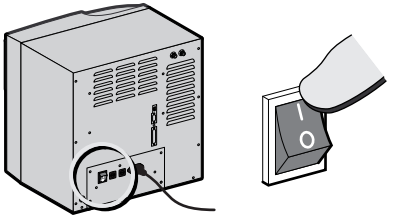

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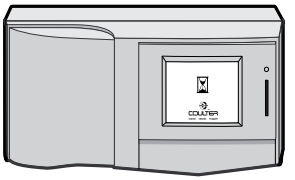

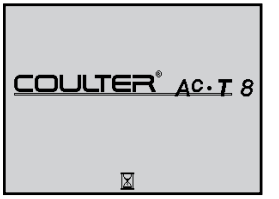

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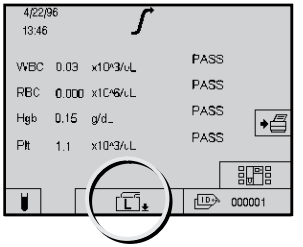

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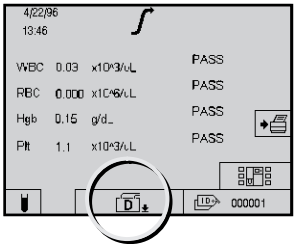

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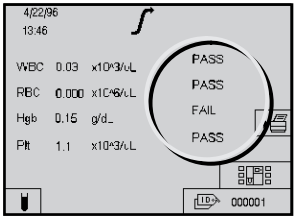
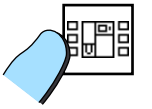
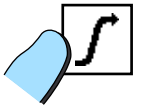


PASS
PASS
PASS
PASS

FAIL





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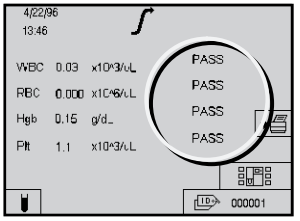

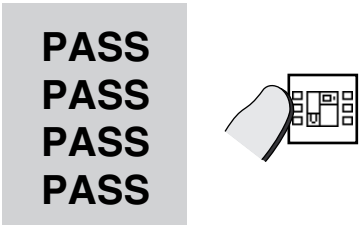

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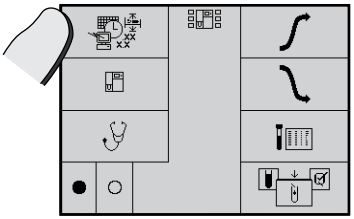
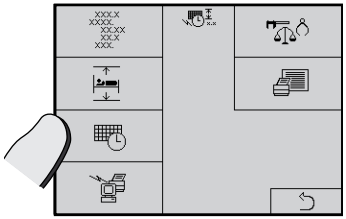
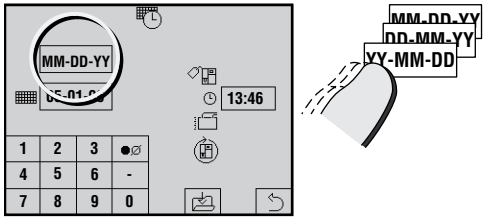
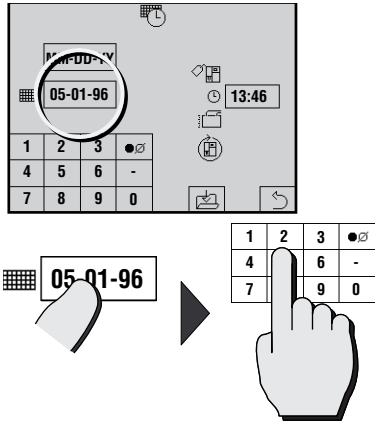




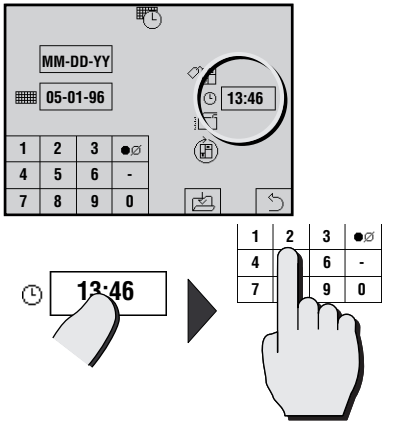
11 To change the date format, touch as shown until the correct format appears.



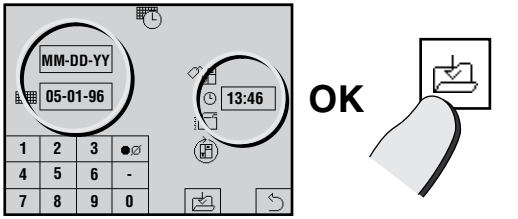
12 To change the date, touch the date then touch the correct numbers to enter the current date. Use a dash to separate the month, day and year.



13 To change the time, touch the time, then touch the correct numbers to enter the current time. Use the dash to separate the hours and minutes.



14 To save the date format, date and time you chose, touch the **Save and Exit** icon.

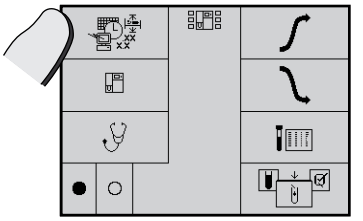


15 If you need to customize your A^{C}•T system (for example, change the reporting units), go to the Customize Software section of this manual.

If you will use the system's default values, you are ready to run samples. Go to the Verify Instrument Results section of this manual.

Customize Software

1 Look at the setup screens to check the default values for the A^{C}•T.

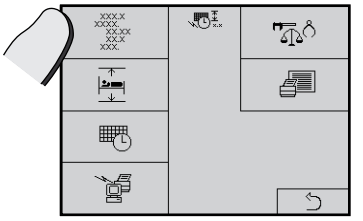


Note: If you have a printer available, you can print a report that shows all the default values. See the Print Customized Values heading in this chapter.

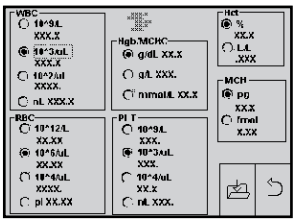
If you need to change any of the values, follow the instructions in this section. If you do not need to change the values, go to the Verify Instrument Results section of this manual.

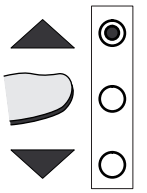
Change Reporting Units

1 Reporting units determine the format in which units will display (for example, where the decimal point is placed in the sample result).

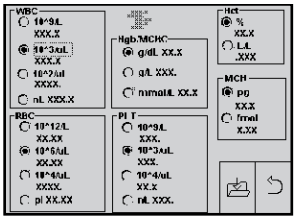


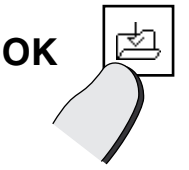
2 To select the reporting unit formats you want to use, choose the unit format by touching it on the screen.





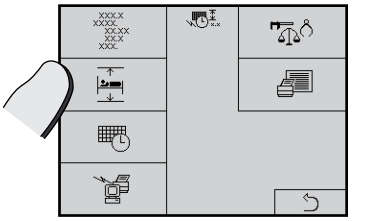
3 To save the unit formats you chose, touch the **Save and Exit** icon.



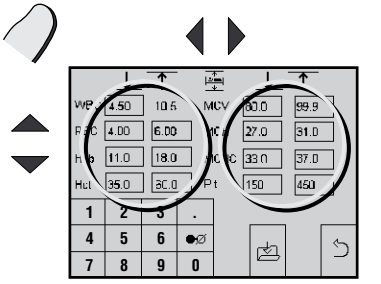


Set Patient Limits

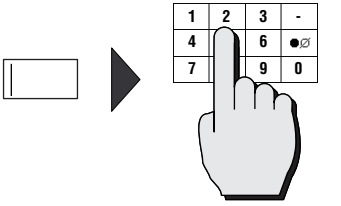
1 Patient limits are the high and low limits that you set for your patients. The A^{C}•T flags any parameter value above (H) or below (L) these limits.



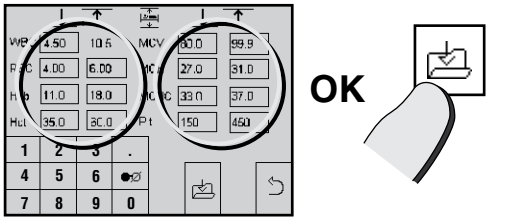
2 To change patient limits for a parameter, touch the limit.



3 Then touch the correct numbers to enter the desired value for the parameter. Repeat this procedure for each patient limit that you want to change.

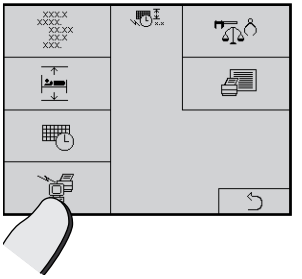


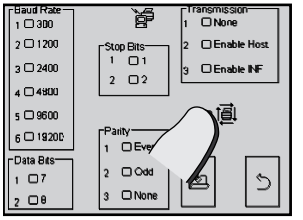
4 To save the patient limits you chose, touch the **Save and Exit** icon.



Set Autoprint

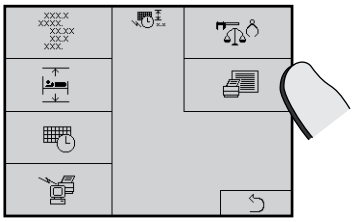
If you want sample results to always print when you run a sample:





Print Customized Values

When you are finished customizing your software, print and save the customized values. (This screen also prints the factory-set calibration factors. Store the customized values for future reference.) Print the values whenever you change the setup of your A^{C}•T.



Verify Instrument Results

1 Verify that the Startup results are acceptable (PASS).

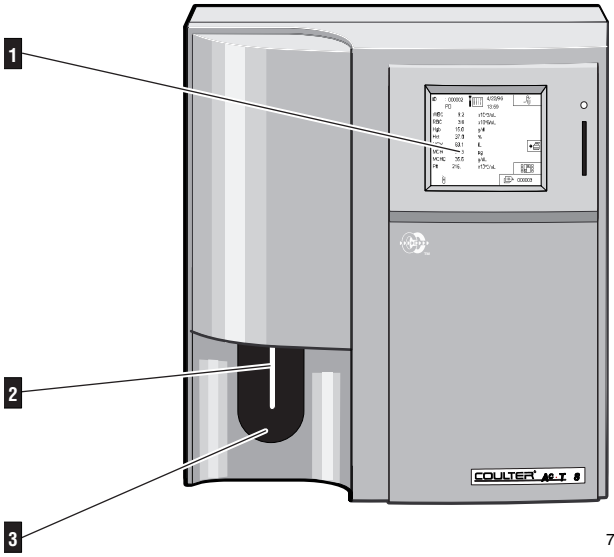
2 Obtain the verification material (COULTER 4C PLUS Cell Control, A^C•T Tron‡ or whole blood with known results).

3 Run the verification material according to the package insert for control or according to your laboratory procedures. Assure yourself that the results meet your performance expectations.

Introducing the Instrument

The A^C•T is a small, easy to use, automated hematology analyzer. You can run blood specimens in either the Whole Blood or Predilute analyzing mode. You interact with the A^C•T in the following ways:

1. By touching an icon on the screen to initiate an action.
2. By presenting a blood specimen to the probe.
3. By pressing the aspirate switch.



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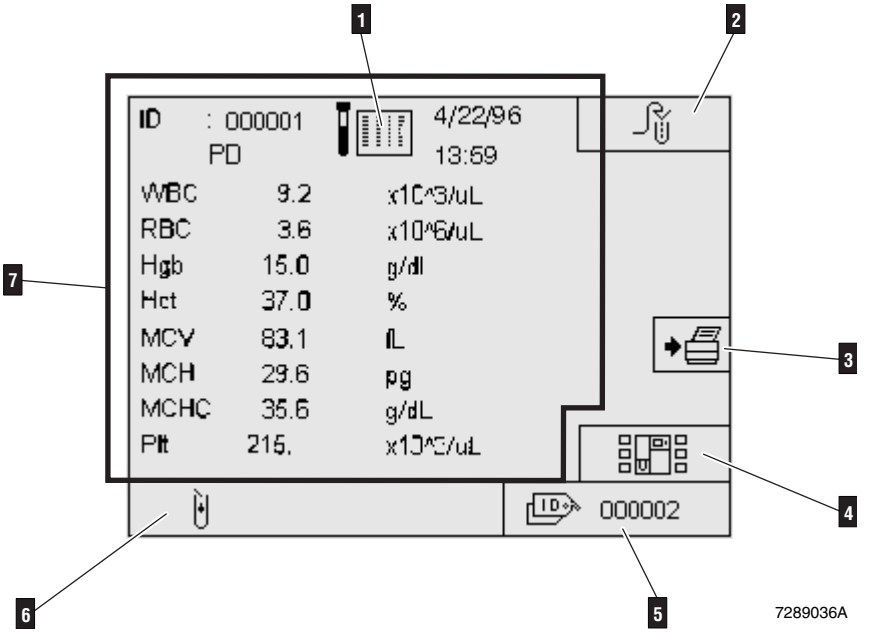
Viewing the Sample Results Screen

1. Sample Results screen, indicator.
2. Touch to dispense diluent for a prediluted sample (only visible if you are in Predilute Mode).
3. Touch to print sample results.
4. Touch to access Main screen special procedures.
5. Touch to change the next ID number if this number is not the one you want to use.
6. Current Analyzing Mode Indicator.
7. Results of this sample.



Reviewing Sample Results

1 Sample Identification number of the results on this screen.

2 Date and time of the sample on this screen.

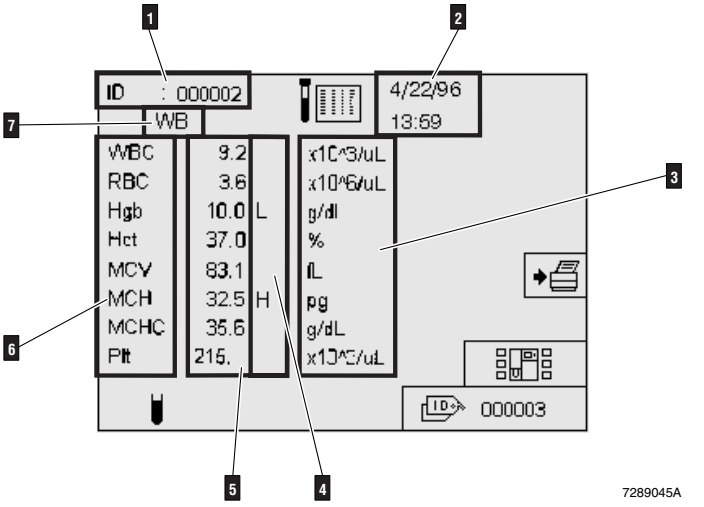
3 Reporting units of parameters on this screen.

4 Flags indicating that the result is outside of patient limits or is questionable. Review the results according to your laboratory's protocol.

5 Results of this sample or flags indicating that you should take action. (See **Special Procedures and Troubleshooting** manual, Table 3-3. for more information.)

6 Parameter names:

WBC	White Blood Cell or leukocyte count
RBC	Red Blood Cell or erythrocyte count
Hgb	Hemoglobin concentration
Hct	Hematocrit (relative volume of erythrocytes)
MCV	Mean Corpuscular (erythrocyte) Volume
MCH	Mean Corpuscular (erythrocyte) Hemoglobin
MCHC	Mean Corpuscular (erythrocyte) Hemoglobin Concentration
Plt	Platelet or thrombocyte count



7 Analyzing mode of this sample:

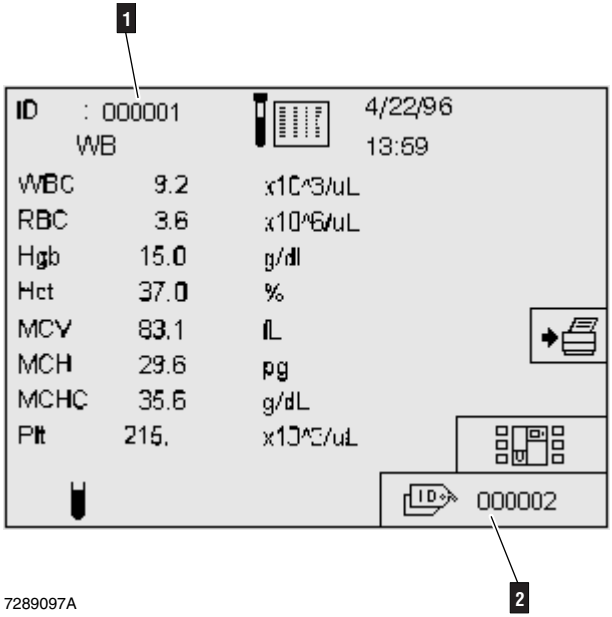
WB	is a whole-blood sample.
PD	is a prediluted blood sample.
QC	is an A^{C}•T Tron‡ cell control sample.

Assigning a Sample ID

The A^{C}•T Sample Results screen shows two sample ID numbers.

1 The ID number of the sample results on this screen, that is, the last sample run. If you let the A^{C}•T automatically assign ID numbers, it increments this number by 1 for the next sample. When the ID reaches 999999, the next sample ID is 000001.

2 The ID number for the next sample run. Touch this icon if you want to change the ID number for the next sample run.



1 If you need to change the ID number from the one the system assigns, you enter the next ID by touching the numbers on this keypad. You can enter from 1 to 6 digits.

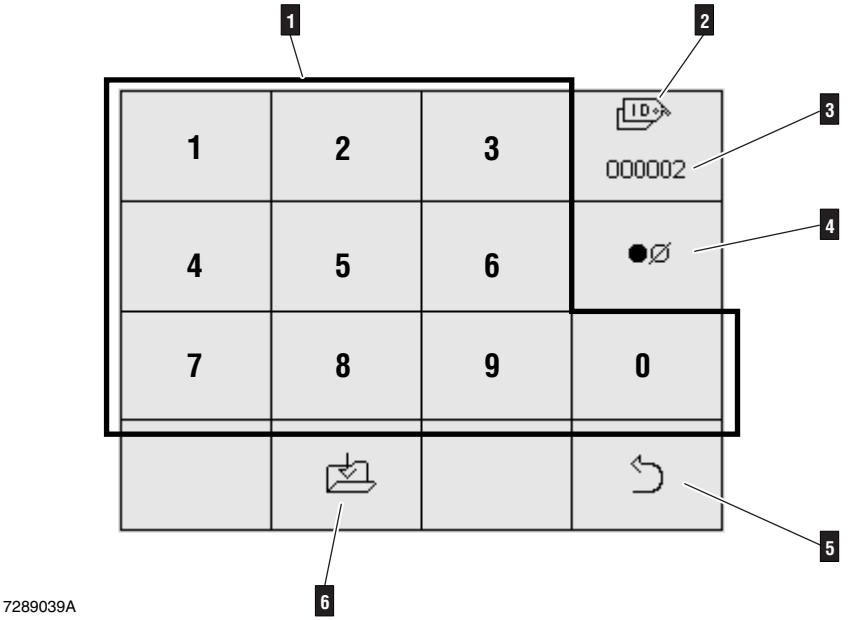
2 ID number screen title.

3 ID for the next sample run.

4 Touch to erase the ID number if you enter it incorrectly.

5 Touch to exit ID number screen without changing ID number. Returns you to Sample Results screen.

6 Touch to save the ID number displayed, to make it the next sample ID number and to exit screen. You return to the Sample Results screen.



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Setting the Analyzing Mode

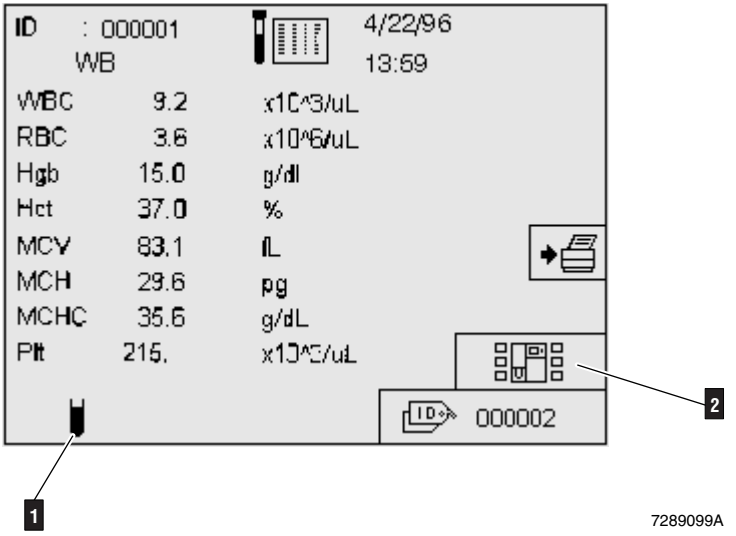
1 The analyzing mode for the next sample appears in the lower left corner of the screen. It is either:

Whole Blood mode

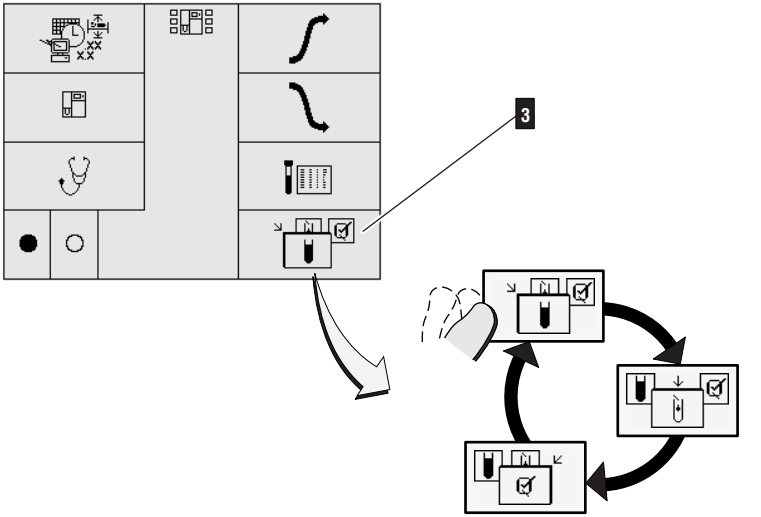
Predilute mode

A^{C}•T Tron‡ mode.

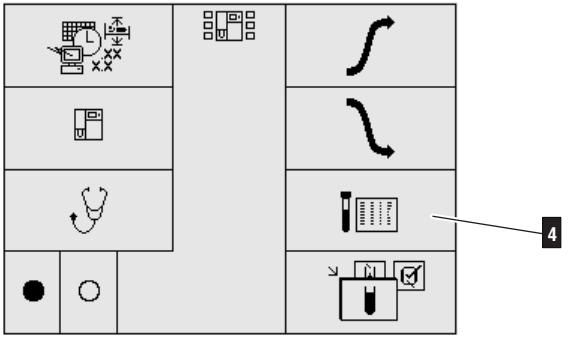
2 To change the analyzing mode, touch the **Go to Main Screen** icon to access special functions.



3 Touch the **Analyzing Mode** icon until the one you want appears.



4 Touch the **Sample Results** icon to return to the Sample Results screen.



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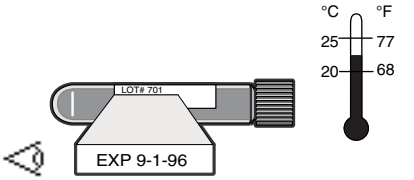
Running A^{C}•T Tron‡ Cell Control

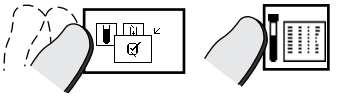
IMPORTANT Only run A^{C}•T Tron‡ in the A^{C}•T **Tron** mode. Running A^{C}•T Tron in the incorrect analyzing mode will cause wrong results.

1 Ensure that A^{C}•T Tron is not past its expiration date and that it is at the correct temperature.

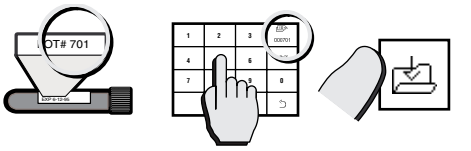


2 See the package insert for instructions. Inspect the tube contents to ensure that all cells are uniformly distributed; if not, repeat this step.

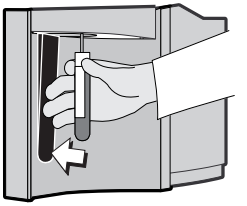
3 Set the analyzing mode to A^{C}•T Tron (see Setting the Analyzing Mode heading in this chapter.)



4 You can use the lot number of the control for the ID number.

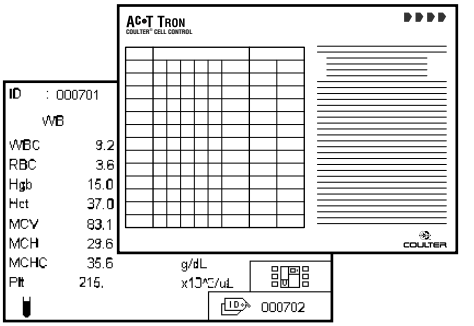


5 Hold the A^{C}•T Tron‡ tube up to the probe so tip is into the control and press the aspirate switch. When you hear the beep, remove the A^{C}•T Tron tube and replace the cap.



6 Record the control values for future reference.

7 Compare the instrument values with those on the A^{C}•T Tron TABLE OF EXPECTED RESULTS corresponding to your laboratory's operating range. See Table 3-10 in the **Special Procedures and Troubleshooting** manual for information on reviewing results.



8 If the results are within the assigned range, you are finished running controls.

If results are not within the expected range, rerun the control starting at step 4.

If results are still out of range, see Table 3-10 in the **Special Procedures and Troubleshooting** manual.

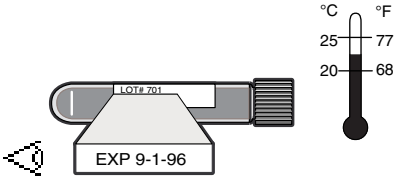
If you do all of the above steps and the results still do not meet your performance expectations, call your Coulter Representative.

9 Return the control vial to the refrigerator in the original packaging. Store horizontally.

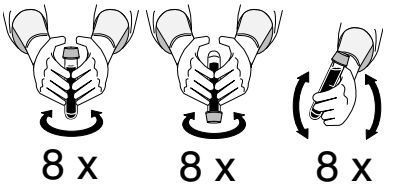
Running COULTER 4C PLUS Cell Control

IMPORTANT Risk of misleading results. Only run 4C PLUS in **Whole Blood** mode. Running 4C PLUS in the incorrect analyzing mode can cause wrong results.

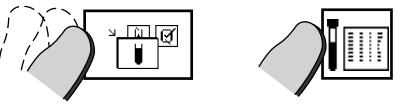
1 Ensure that 4C PLUS is not past its expiration date and that it is at the correct temperature.



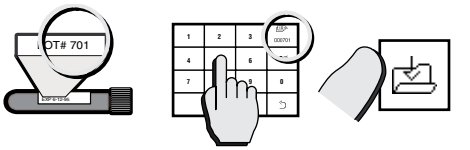
2 After warming, mix each control gently according to instructions in the cell control package insert. Inspect the tube contents to ensure that all cells are uniformly distributed; if not, repeat this step.



3 Set the analyzing mode to Whole Blood (see Setting the Analyzing Mode heading in this chapter).

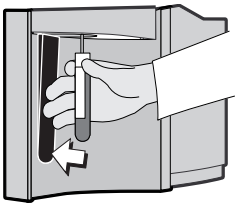


4 Set the sample ID to the lot number on the 4C PLUS tube.



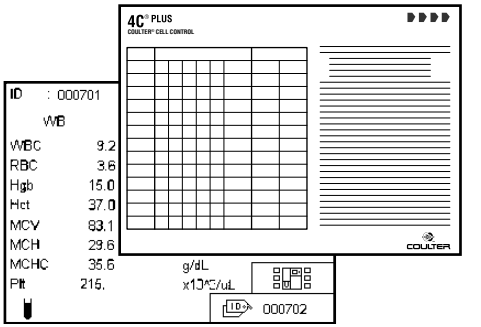
5 Invert the tube once or twice prior to cycling. Cover the top of the control tube with lint-free tissue and remove the cap.

6 Hold the 4C PLUS tube up to the probe so tip is into the control and press the aspirate switch. When you hear the beep, remove the 4C PLUS tube and replace the cap.



7 Return the control vial to the refrigerator.

8 Compare the instrument values with those on the 4C PLUS Table of Expected Results. Disregard any H or L flags. These flags indicate results outside the normal patient flagging limits. See the **Special Procedures and Troubleshooting** manual, Table 3-3, for information on reviewing results.



9 If the results are within the expected range, you are finished running controls.

If results are not within the expected range, rerun the control starting at step 4.

If results are still out of range, see Table 3-9 in the **Special Procedures and Troubleshooting** manual.

If you do all of the above steps and the results still do not meet your performance expectations, call your Coulter Representative.

Running Samples

When you have set the A^{C}•T to the correct analyzing mode (Whole Blood or Predilute) and have approved the sample ID, you are ready to run samples.

To ensure that the blood specimen is analyzed correctly, you must set the instrument to the correct analyzing mode (Whole Blood or Predilute). To record the sample results correctly, you must ensure that the ID number is correct.

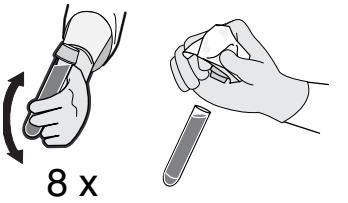
IMPORTANT Risk of misleading results. Running a blood sample in the incorrect analyzing mode can cause wrong results. Only run a whole-blood sample in the **Whole Blood** mode.

Whole Blood

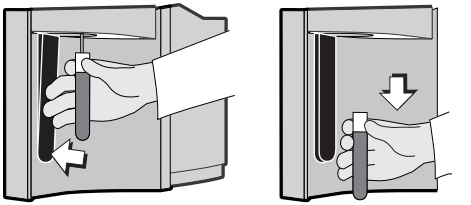
1 Set analyzing mode to Whole Blood.(See Setting the Analyzing Mode heading in this chapter.)

2 Set Sample ID to correct number or let the A^{C}•T increment the current ID number by 1.

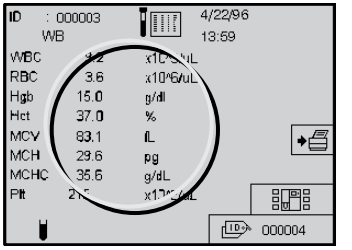
3 Mix sample according to your laboratory's protocol.



4 Present the mixed sample to the probe and press the aspirate switch. When you hear the beep, remove the sample.

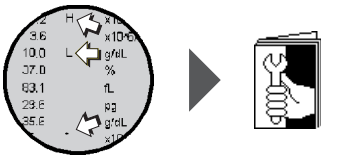


5 The A^{C}•T displays the sample results on the screen.



6 Record the results for future reference.

7 If there are no flags on results, the A^{C}•T is ready to run next sample. If flags appear, see Table 3-3 in the **Special Procedures and Troubleshooting** manual.



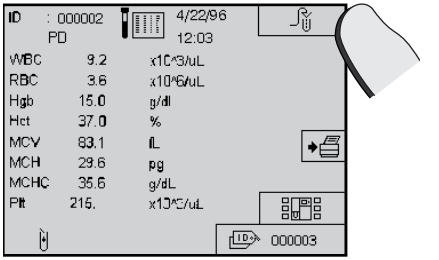
Prediluted Blood

IMPORTANT Risk of misleading results. Running a blood sample in the incorrect analyzing mode can cause wrong results. Only run prediluted blood in the **Predilute** mode.

1 Set analyzing mode to prediluted blood. (See Setting the Analyzing Mode heading in this chapter.)

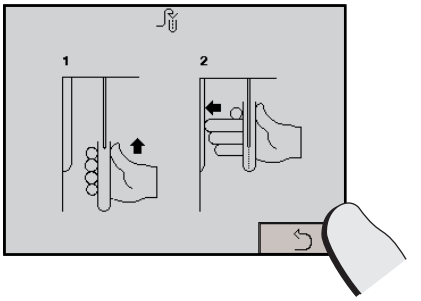
2 Set Sample ID to correct number or let the A^{C}•T increment the current ID number by 1.

3 Touch the **Dispense Diluent** icon on the screen.

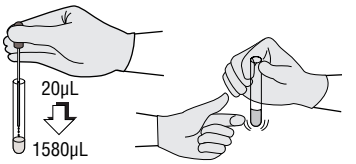


4 Present an empty tube to the probe and press the aspirate switch to dispense 1580 µL of diluent into the empty tube.

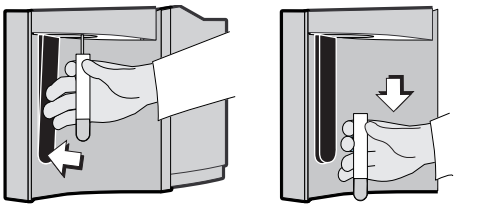
If you have no more samples to prepare, press the **Exit** icon to return to the Sample Results screen.



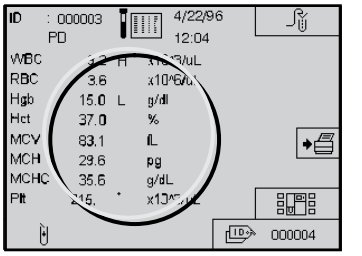
5 Add 20 µL of blood specimen to the diluent in the tube. Mix sample according to your laboratory's protocol. Wait at least 2 minutes before running the sample.



6 Present the mixed, prediluted sample to the probe and press the aspirate switch. When you hear the beep, remove the sample.

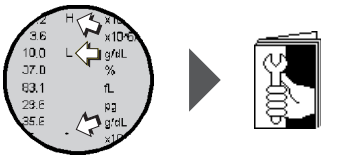


7 The A^{C}•T displays the sample results on the screen.



8 Record the results for future reference.

9 If there are no flags on results, the A^{C}•T is ready to run next sample. If flags appear, see Table 3-3 in the **Special Procedures and Troubleshooting** manual.



Sample Requirements

- *How should I collect samples for the A^C•T?*

Collect **Venous samples** in a salt of EDTA and draw them via syringe or collection tube. Follow the directions on the manufacturer's package insert to ensure sample integrity.

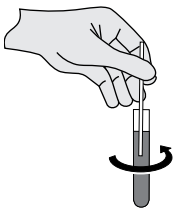
Collect 20 µL **Capillary samples** in nonanticoagulated pipettes and predilute directly into diluent.

Tips for quality capillary sample collection:

- Warm finger or puncture area to ease blood flow.
- Clean area on and around puncture site thoroughly with alcohol to remove unwanted debris.
- Hold puncture site below heart level to improve blood flow.
- Wipe first drop of blood away and begin filling collection device once drops form at puncture site.
- Do not squeeze puncture site too hard or tissue fluid may contaminate the sample.

- *How can I detect a clotted sample?*

Look at the samples and use a wooden applicator stick or toothpick to check for fibrin strands or clots.



IMPORTANT Improper mixing can cause wrong results. Mix sample gently and thoroughly.

- *How should I mix whole blood samples for analysis?*

Mix sample at least 8 times by hand inversion:

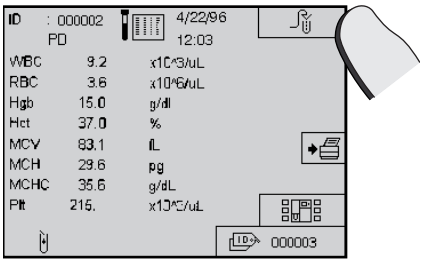
Gently turn capped sample

- Upside down
- Back straight up.

or use a mechanical mixer for at least 5 minutes.

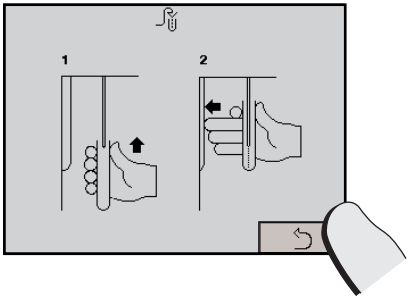
■ *How should I run prediluted samples for analysis?*

1. Set the analyzing mode to predilute. (See Chapter 2, Setting the Analyzing Mode.)
2. Return to the Sample Results screen and touch the **Dispense** icon.

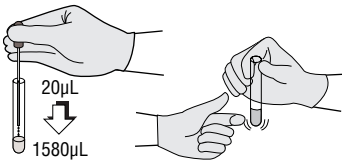


3. Present an empty tube to the probe and press the aspirate switch to dispense 1580 µL of diluent into the empty tube.

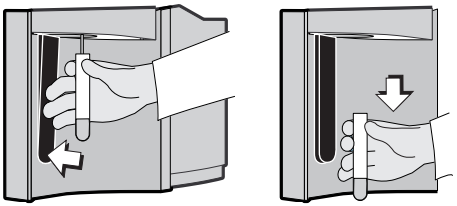
   If you have no more samples to prepare, touch the **Exit** icon to retun to the Sample Results screen.



4. Add the 20 µL blood specimen to the diluent in the tube and tap the tube to mix. Wait 2 minutes.



5. Present the mixed, prediluted sample to the probe and press the aspirate switch to run the sample.



■ *How soon should I run samples for analysis on the A^{C}•T?*

Run whole-blood specimens within 24 hours of collection.
Run prediluted specimens within 4 hours of collection. The prediluted sample must be prepared at least 2 minutes before running.
Run at room temperature (16-35°C).

Instrument Setup

- *How do I replace the reagents?*

  See the Heading 2.1, Replacing Reagents, in the **Special Procedures and Troubleshooting** manual.

- *How do I prepare the printer for operation?*

  Make sure that:

  - Printer power is on.
  - Printer online button is lit.
  - Adequate paper supply exists.
  - Printer ribbon is not worn.
  - Printer cable is properly connected.

  Refer to your printer's user manual for specific instructions.

- *How do I set up for Automatic Print?*

  See Customize Software, Set Autoprint, in Chapter 1 of this manual.

- *How do I customize the instrument setup?*

  See Customize Software in Chapter 1 of this manual.

- *How do I set up (or change) Date and Time?*

  See Installing the Instrument in Chapter 1 of this manual.

- *How do I change Patient Limits?*

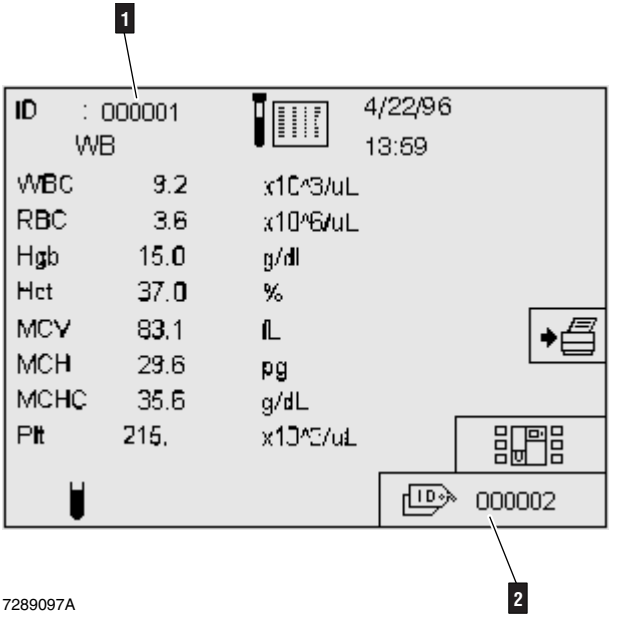
  See Customize Software, Set Patient Limits, in Chapter 1 of this manual.

- *How do I change Parameter Reporting Units?*

  See Customize Software, Change Reporting Units, in Chapter 1 of this manual.

Daily Procedures

- *What daily procedures do I need to know for routine operation of my A^{C}•T?*
  - Startup/Shutdown
  - How to Run A^{C}•T Tron‡ or 4C PLUS controls.
  - How to Run Whole Blood Samples
  - How to Run Prediluted Samples
  - How to Handle Flagged Results.
- *How do I change the Sample ID number?* See Assigning an ID Number in Chapter 2 of this manual.
- *How does the A^{C}•T automatically assign Sample ID numbers?* The A^{C}•T automatically increases the current sample identification number **1** by 1 to produce the next ID number **2**.



- *How do I perform Shutdown on the A^{C}•T?* See Shutdown in the **Operator's Guide**.
- *How do I perform Startup on the A^{C}•T?* See Startup in the **Operator's Guide**.

- *How do I run Quality Controls on the A^C•T*

  Refer to the package insert in the controls package or follow your laboratory's procedure for quality controls.

  Do:

  - Follow instructions on package insert.
  - Mix by hand only. Do not use a mechanical mixer.
  - Label with date opened.
  - Place back in refrigerator within 30 minutes.

  Do not:

  - Warm in microwave.
  - Store in freezer.
  - Use past expiration date.
  - Store upside down.

- *How do I run samples on the A^C•T?*

  See Running Samples in Chapter 2 of this manual.

- *How do I handle flagged results on the A^C•T?*

  See Table 3-3 in the **Special Procedures and Troubleshooting** manual.

- *What information should I keep in my laboratory logbook?*

  Coulter recommends you keep a laboratory logbook of the following information to facilitate smooth inspections:

  - Record daily startup.
  - Record control results.
  - Record reagent lot number and expiration date.
  - Record all maintenance and service procedures performed.
  - Record troubleshooting and corrective action taken.

Special Procedures

■ *What general and preventive maintenance procedures am I required to perform on my instrument?*

You are responsible for general and preventive maintenance on your A^{C}•T. A maintenance chart and step-by-step instructions for performing this maintenance are in the A^{C}•T **Special Procedures and Troubleshooting** manual. The procedures include:

- Replacing tubing
- Replacing fuses
- Replacing the waste container
- Replacing the reagents
- Replacing the vacuum isolator chamber
- Adjusting the vacuum
- Cleaning the baths
- Replacing the syringe piston seals
- Replacing the probe wipe
- Replacing filters
- Replacing check valves.

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